

Emulsifier-free antifoams, their preparation and their use

Abstract

5 Emulsifier-free antifoams are obtainable by mixing

- a) from 80 to 99% by weight of at least one finely divided, virtually water-insoluble, inert solid with
- 10 b) from 1 to 20% by weight of at least one hydrophobic, organic compound which has an antifoam action and is solid at room temperature

in the absence of a solvent in a shear gradient such that the particle size of the compounds (b) which have an antifoam action is reduced to a mean particle size of from 0.5 to 15 μm , emulsifier-free oil-in-water dispersions of mixtures of (a) and (b) are
15 prepared by mixing the component (a) in an amount of from 80 to 99% by weight with the compounds of component (b) in an amount of from 1 to 20% by weight in the absence of emulsifiers in an extruder or kneader in a manner such that the mean particle size of the component (b) in the mixture is brought to 0.5 to 15 μm , at up to 100°C, and emulsifying the mixture in water, and the oil-in-water dispersions thus
20 obtainable are used as antifoams and/or deaerators for aqueous, disperse or nondisperse liquids, in particular as antifoams and/or deaerators in the paper industry, in the food industry and in wastewater treatment plants.